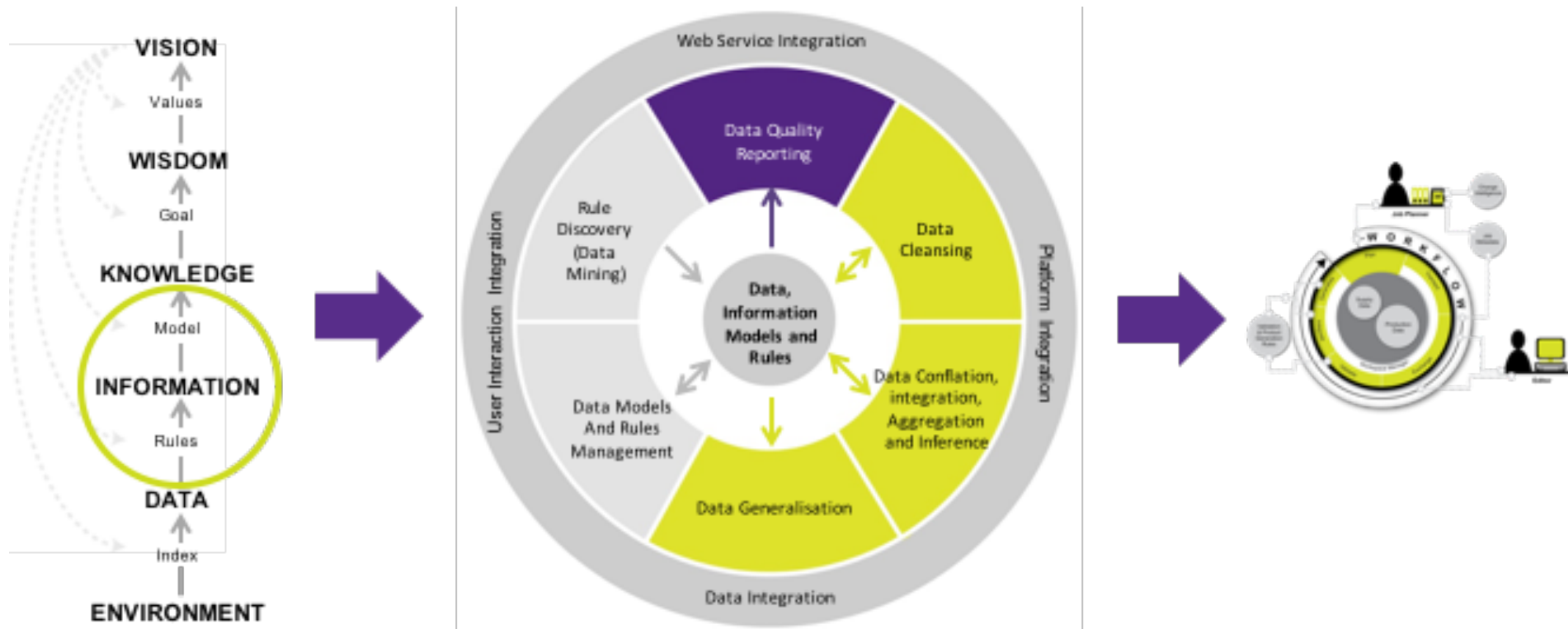
A stylized illustration of a cityscape. In the foreground, a road with a yellow curb and white dashed lines curves from the bottom right towards the center. Two black streetlights with curved arms stand on either side of the road. In the background, a grey grid pattern represents a city grid. On top of this grid, several black and grey silhouettes of buildings of various heights and shapes are shown. Two large yellow rectangular shapes are positioned on the left and right sides of the grid, partially overlapping the buildings.

1Generalise, a flexible and easy to manage  
generalisation tool

Nicolas Regnaud

# A rules-based approach to spatial data management ...

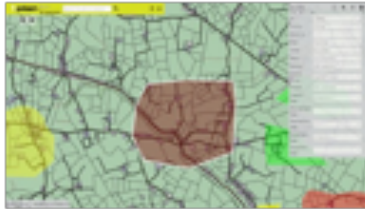


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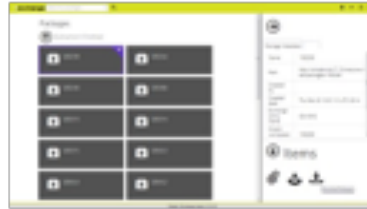


... through automated data lifecycle management

**1publish**



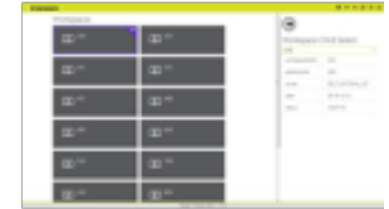
**1plan**



**1exchange**



**1transact**



**1generalise**



**1integrate**



**1edit**



**1validate**



**1spatialmanagement**  
suite

**1spatialworkflow**

**1spatialplan**

**1plan**

**1spatialmaintain**

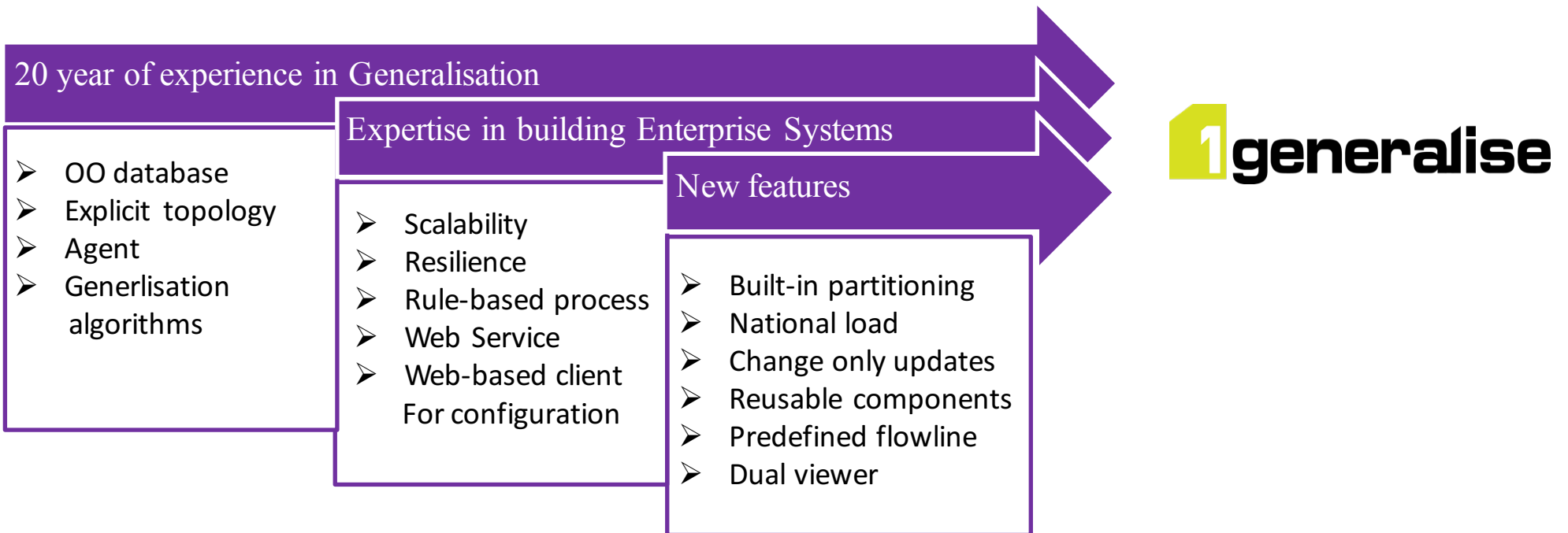
**1edit**  
**1exchange**  
**1transact**  
**1validate**

**1spatialpublish**

**1generalise**  
**1integrate**  
**1publish**



1Generalise: Building on expertise gained from 20+ years of close relationships with NMAs



## Key Concepts



Flowlines Designer



Classification Editor



Profile Editor

### *Flowline:*

- Associated with a specific type of map
- Provides the logic used to generalise all themes relevant to that map
- Made of reusable components (subflows, steps)

### *Classification:*

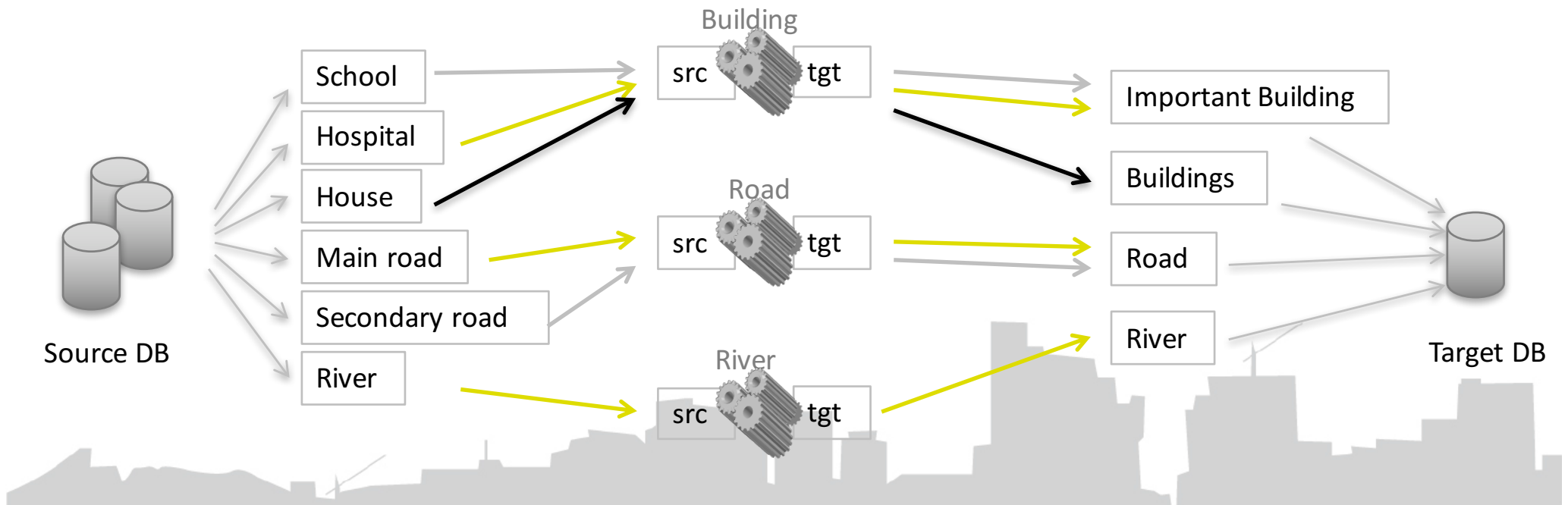
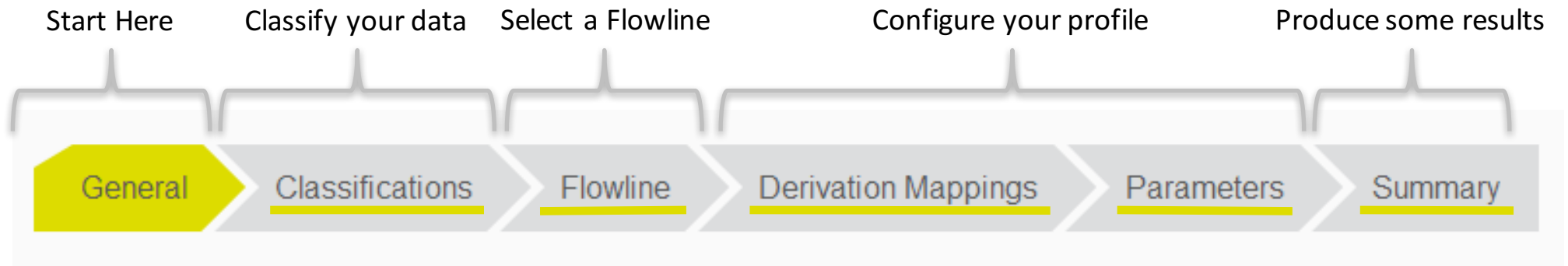
Used to reclassify user data into themes which can be mapped to Flowline themes.

### *Profile:*

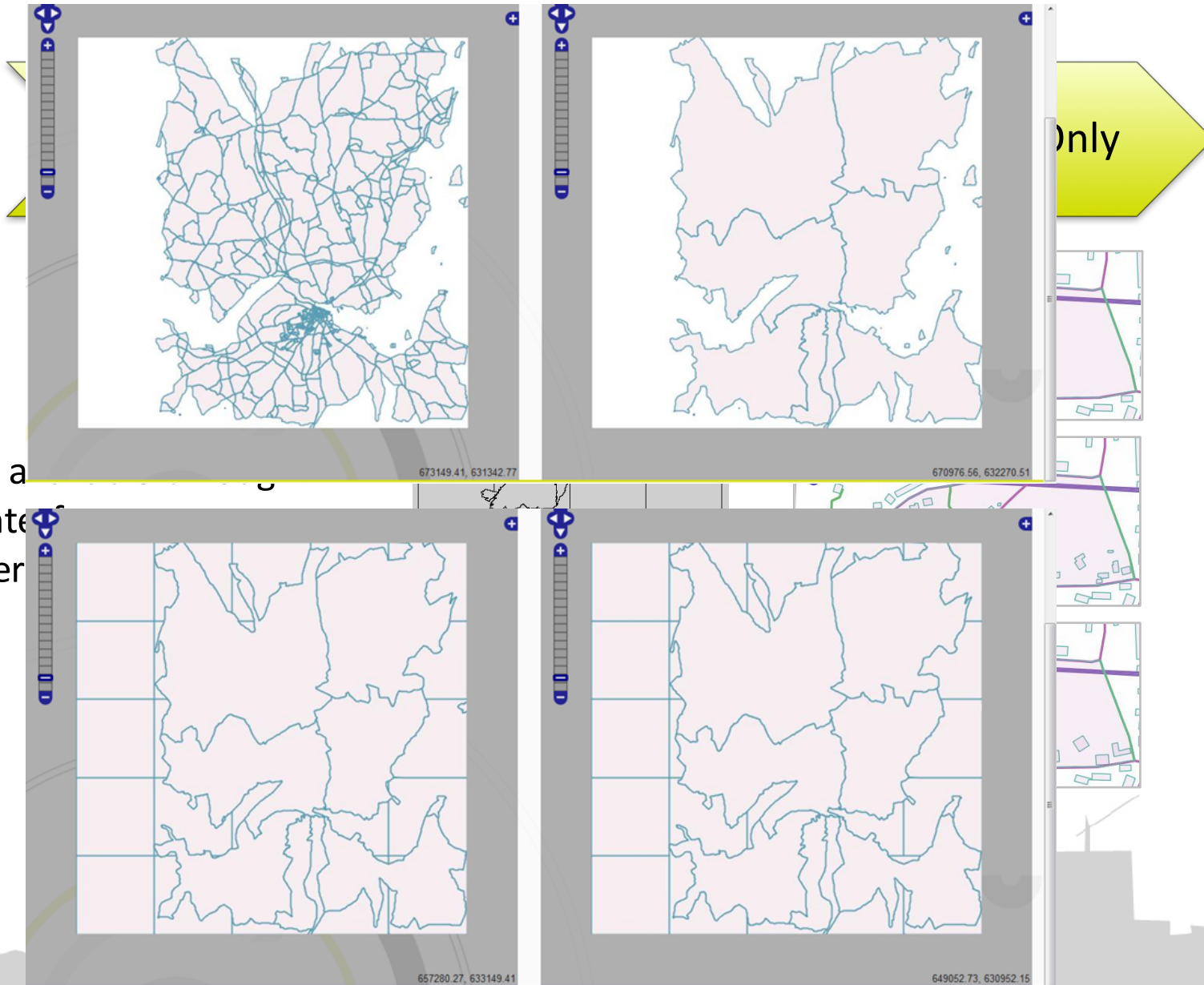
Configuration settings to apply a Flowline to classified data



# Configuring your profile



# Processing Modes



All modes are available in:

- User Interface
- Web Services



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# DEMO



A stylized illustration of a cityscape. In the foreground, a road with a yellow curb and white dashed lines curves to the right. A black bridge with a railing spans across the road. In the background, a city skyline is depicted with various building silhouettes in black and grey, some with a grid pattern. Two streetlights with black poles and curved arms are positioned on either side of the road. The overall style is minimalist and modern, using a color palette of black, grey, white, and yellow.

Generalisation tools available in 1Generalise

# Simplification and smoothing of lines / boundaries

## ***Topology awareness:***

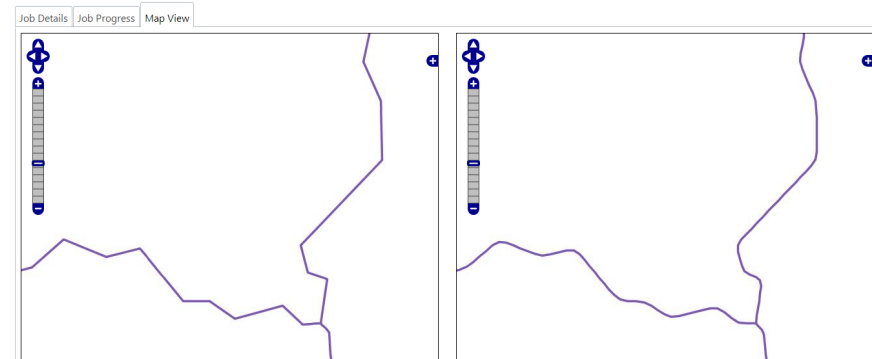
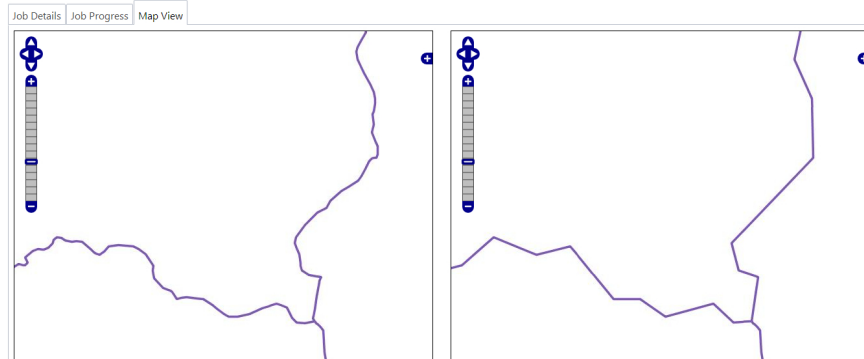
- Maintains shared geometries
- Does not generate new intersections

## ***Simplification algorithms:***

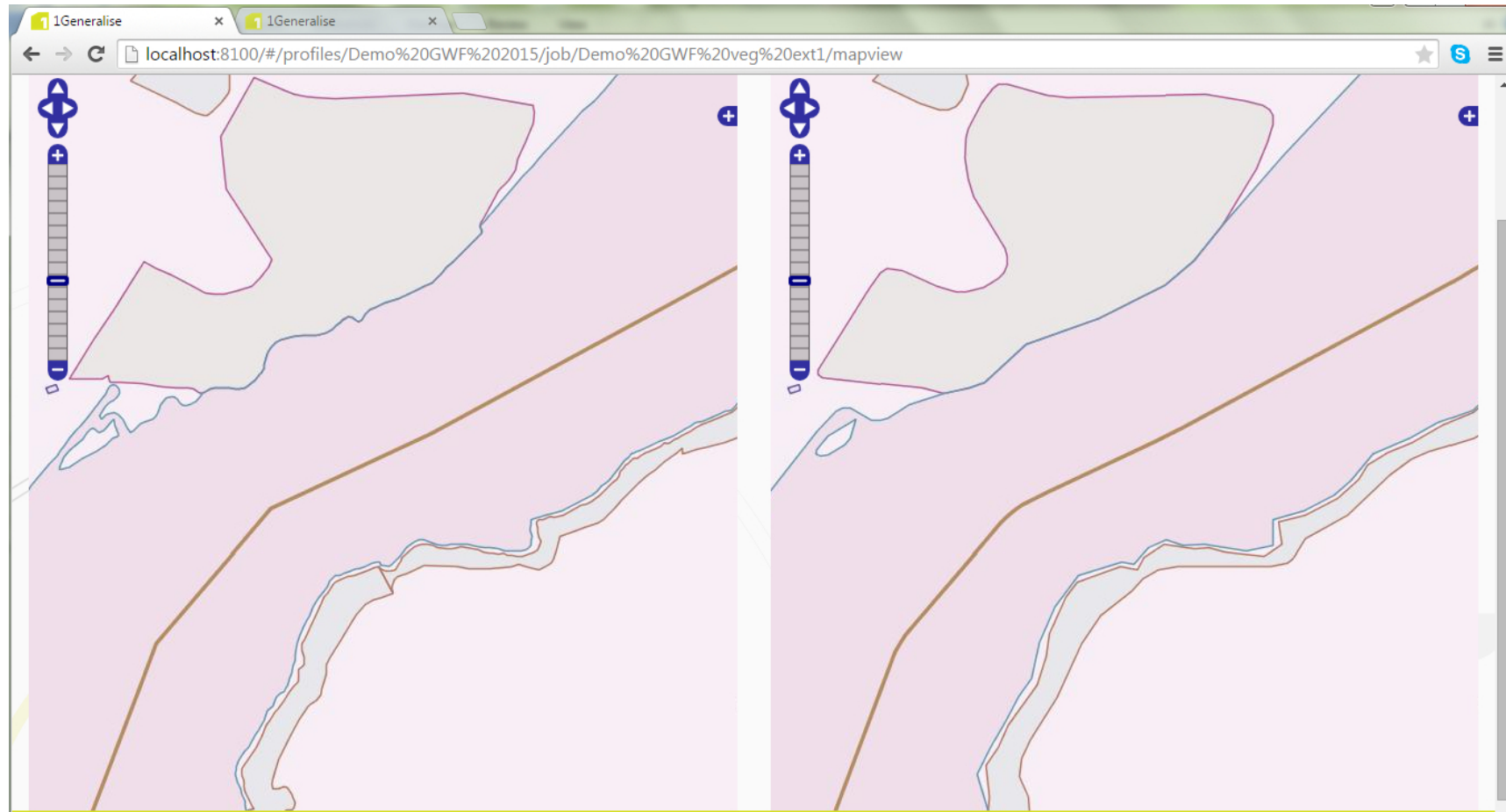
- Douglas and Peucker
- Visvalingham
- Weighted effective Area

## ***Smoothing algorithms:***

- Gaussian Smoothing



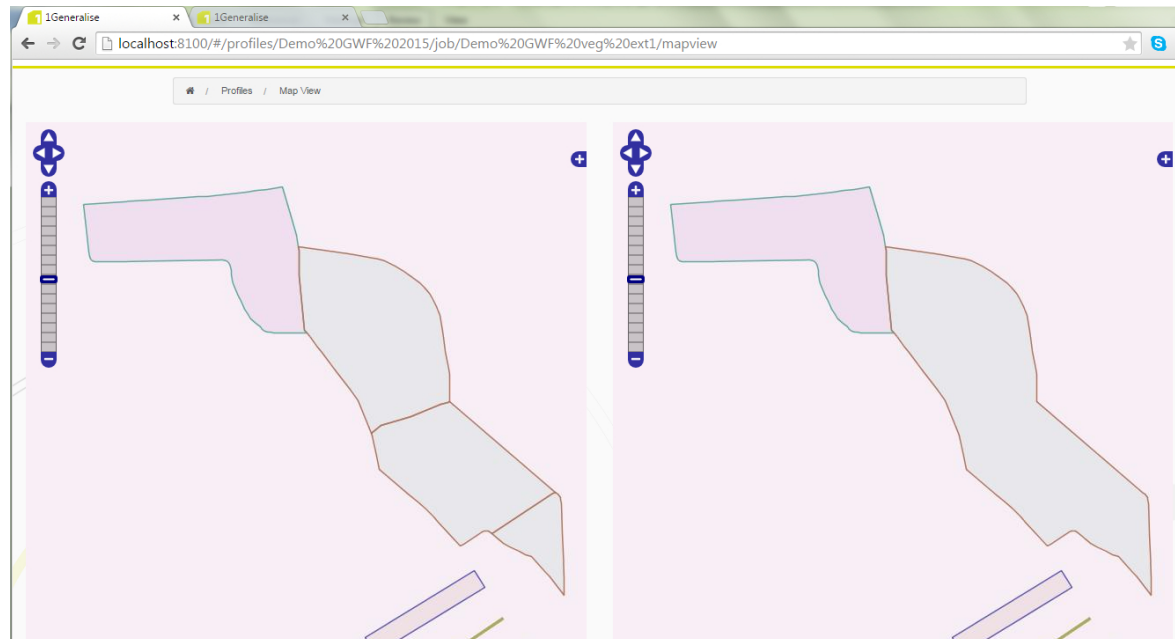
# Simplification of lines / boundaries



## Merge adjoining area features

### **Control:**

- Only merges features of the same target theme
- Possibility to modify the rule to prevent merging when specific linear features follow the shared boundary



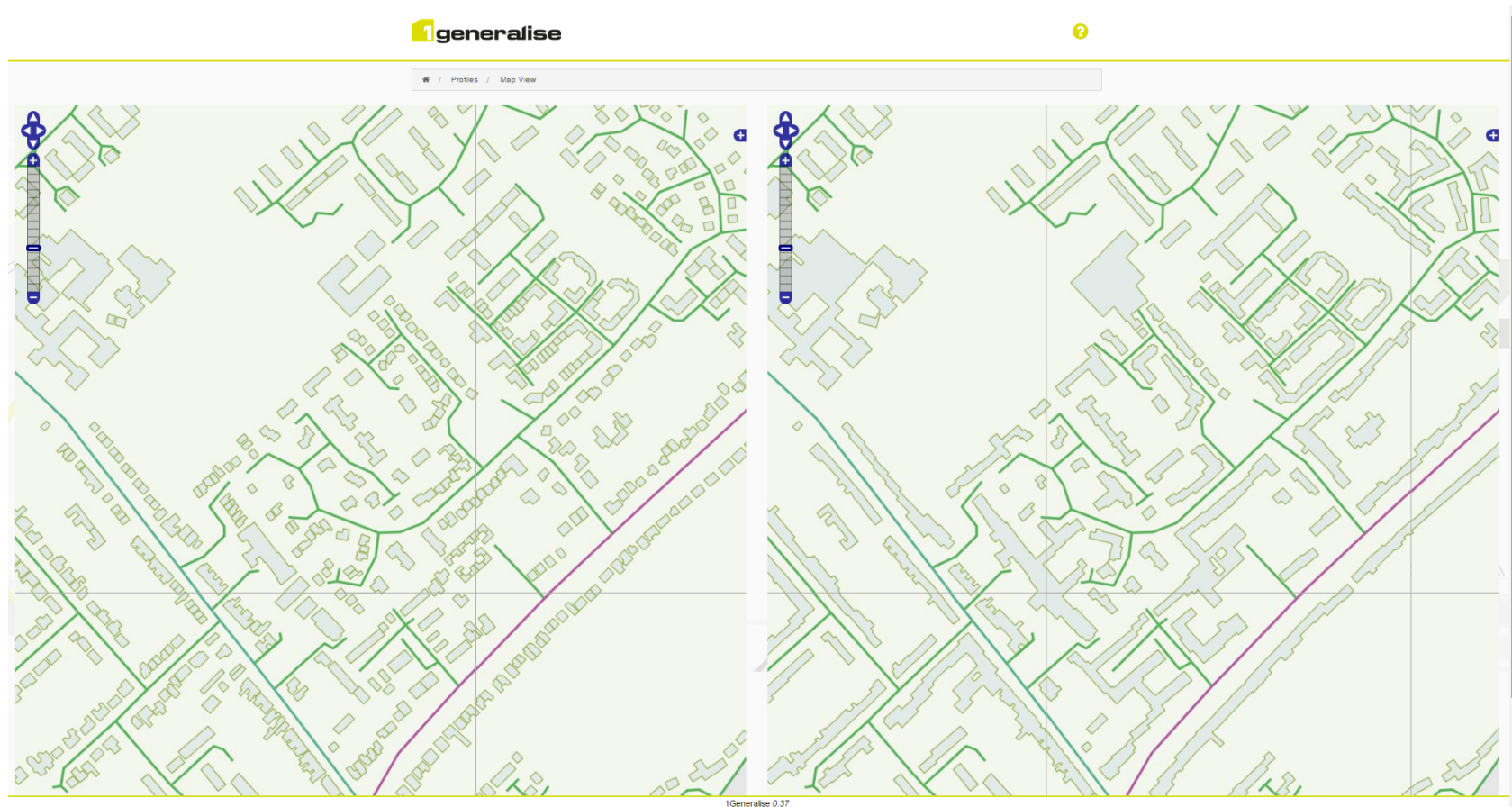
# Aggregate area features in close proximity

## **Control:**

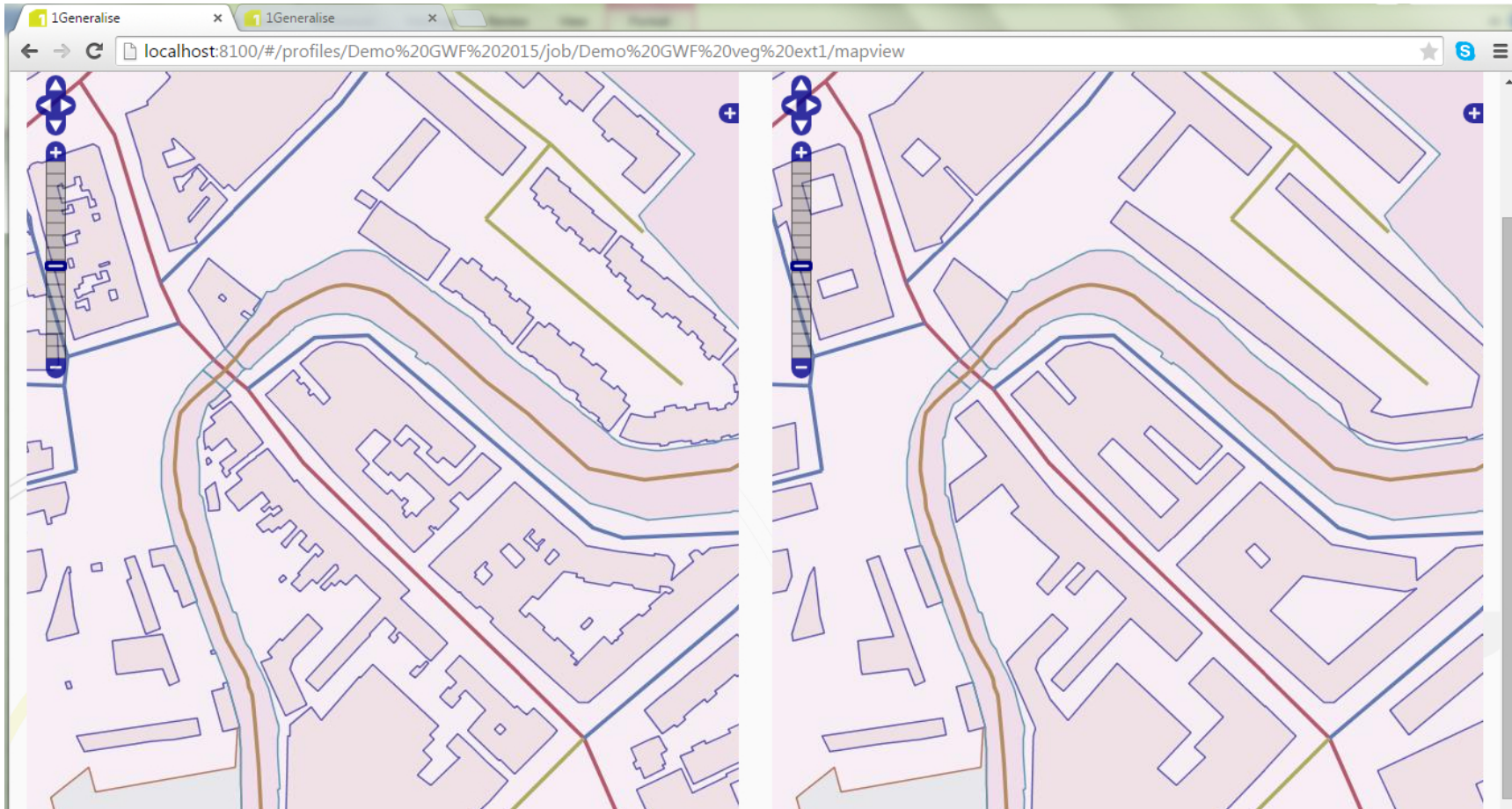
- Only merges features of the same target theme
- Prevents from aggregating across features of given themes



# Aggregate area features in close proximity



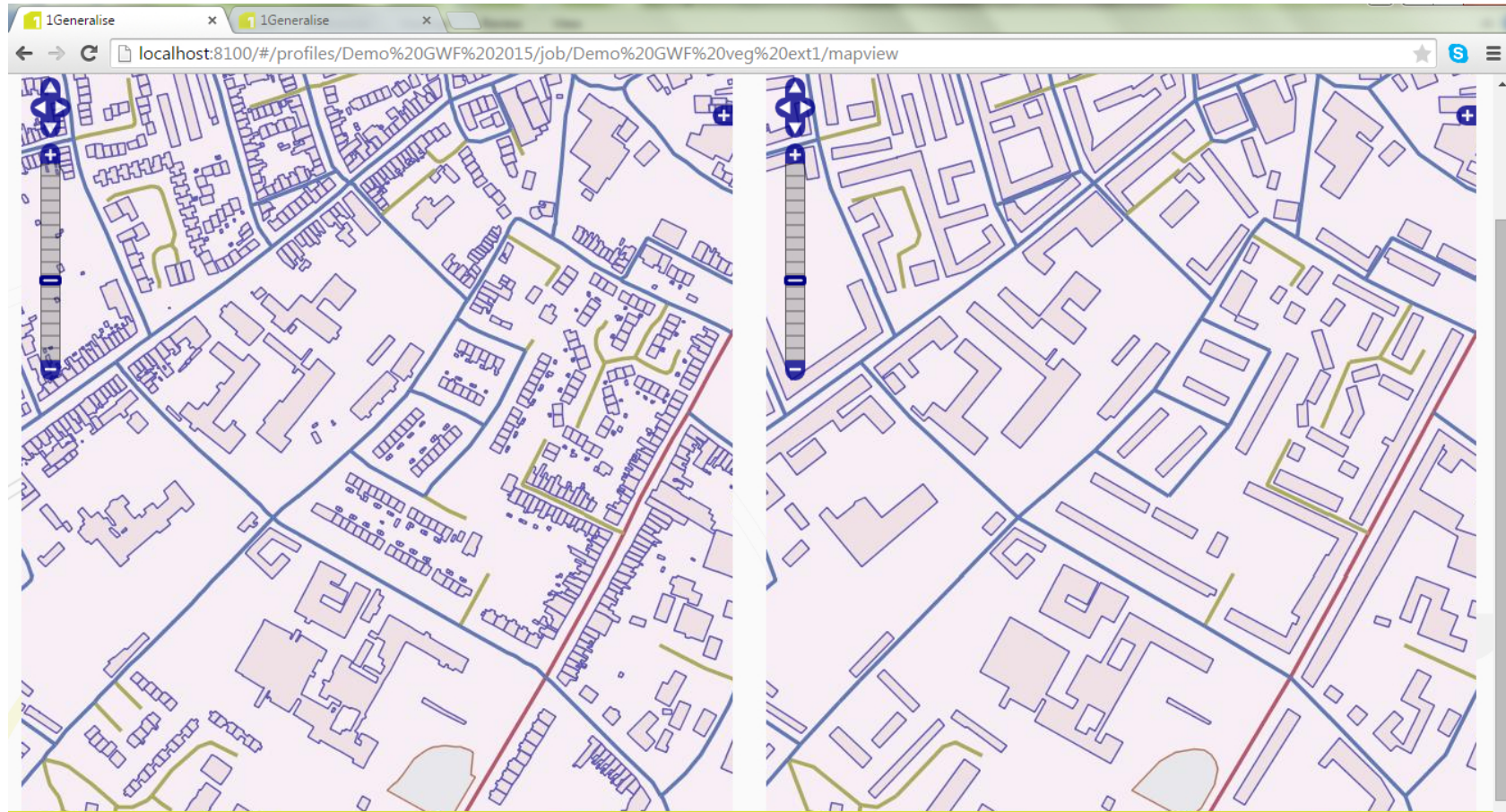
# Building simplification





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# Remove short dead ends

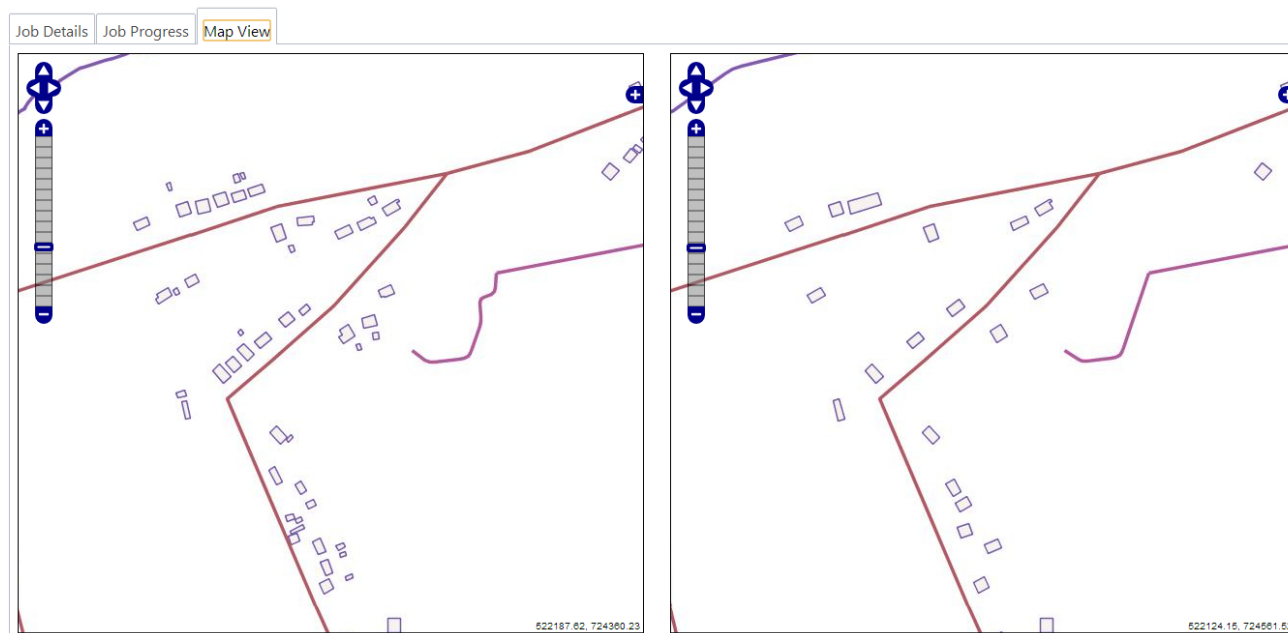


# Action based operations

***Reclassification***

***Delete / Enlarge small features***

***Fill gaps***



## *Summary*

- Dedicated application for generalisation  
National load – change only update
- Production ready  
Scalable and resilient
- Can be integrated in any system  
Service Oriented Architecture
- Easy to configure and use  
Rule-based action editor  
Reusable components, predefined flowline



## *Potential integration with a vario scale system*

- 1Generalise used to generate fixe scale slices for a vario-scale cube
  - Through SOAP Api
  - Generalisation rules can be setup through a Web interface
  - Should be quick to put in place
  - Training required
  
- Integrate Vario scale principles in 1Generalise
  - Requires R&D on 1Spatial side
  - Business case dependant



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# Thank you

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